



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

February 7, 1986

Mr. Alan Trbovich  
Land and Environmental Engineer  
Kennecott  
P. O. Box 11248  
Salt Lake City, Utah 84147

**FILE COPY**

Dear Mr. Trbovich:

Re: DOGM/Kennecott Meeting, Follow-up to Permitting  
Discussions, UCD Modernization Project, Phase I,  
ACT/035/002, Salt Lake County, Utah

The following will summarize the discussions from our meeting held on February 5, 1986. Also outlined, is the additional information necessary before public notice for Phase I can proceed:

1. A recommended seed mix for final reclamation of the disturbed site upon completion of Phase I excavation activities was hand delivered to you.

This seed mix will be used by Kennecott to develop a final reclamation plan for Phase I operations.

2. A detailed list of specific reclamation plan questions which must be addressed in the reclamation plan for Phase I was also hand delivered to you.

Kennecott will incorporate answers to the questions in their next response which will outline the specific reclamation plan for Phase I.

3. A seed cost price list was hand delivered to you at the meeting also. Kennecott will use this list as a basis for revising the bond estimate for reclamation.
4. An updated permit area map which clearly identifies the acreage and permit area boundary of the proposed disturbance for Phase I must be provided.

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Mr. Alan Trbovich  
ACT/035/002  
February 7, 1986

One copy of map #712-C-120 was marked by you at the meeting. You indicated a revised map could be submitted within two weeks. The marked map will suffice until the revised maps are received.

5. A draft copy of the Division's pending publication notice was hand delivered to you and discussed in detail at the meeting.

The Division will revise a portion of text concerning the stipulation requirements. Kennecott will confirm the acreage estimates and notify the Division if a change is necessary.

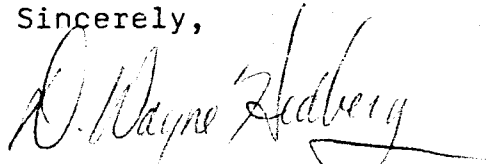
6. Also discussed was the need to reorganize the series of submissions received from Kennecott into a clear, concise and consolidated permit application package for Phase I of the Modernization Project.

This requirement will not hold up publication for Phase I, however it will be a condition to final approval for Phase I operations. The Division will not proceed with the permitting process for Phase II operations until this requirement is met.

Pursuant to our discussions concerning the need for a complete and consolidated permit application for Phase I operations, it is the Division's position that this is the operator's responsibility. Therefore, Kennecott will be held responsible for assembling all supplemental permitting information into a concise, accurate and comprehensive document.

Please call if your understanding of the items discussed above are in question. We look forward to the receipt of your response and to the finalization of the permitting process for Phase I operations.

Sincerely,



D. Wayne Hedberg  
Permit Supervisor/  
Reclamation Hydrologist

DWH:dwh

Enclosures

cc: Lowell Braxton  
Pam Grubaugh-Littig  
8992R-40 & 41

Lynn Kunzler  
Jim Leatherwood

KENNECOTT

February 5, 1986

Rule M-3(2) - JSL

A plan for the reclamation of the land affected should include the following information:

- A. The total volume of material (in cubic yards) that will be graded (moved) to complete Phase I operations.
- B. The type, grade and rate of proposed fertilizer.
- C. Fertilizer application techniques that will be implemented.
- D. The season of fertilizer application.
- E. Agronomic operative procedures. The operator should include the equipment that will be used, the season of seedbed preparation and the type and depth of tillage.
- F. Will organic matter be tilled into the soil? An alfalfa-straw mix at one ton per acre, tilled to a depth greater than six inches is recommended.
- G. Will a mulch be used?
- H. The operator must include techniques to alleviate deep compaction on road surfaces. Ripping at a one foot depth is recommended.
- I. The operator must include the length of time the topsoil will be stockpiled. The location of this stockpile must be delineated on a surface facilities map.
- J. The operator shall include operational plans for the recognition and disposal of all contaminated materials.

0020R-12

Recommended Seed Mix for Final Reclamation  
'Phase I'  
Kennecott Modernization Project

<u>Species</u>	Rate* (lbs./acre)
<u>Grasses</u>	
<u>Agropyron dasystachyum</u> (thickspike wheatgrass)	2.0
<u>Agropyron intermedium</u> (intermediate wheatgrass)	2.0
<u>Agropyron smithii</u> (western wheatgrass)	2.0
<u>Agropyron trachycaulum</u> (slender wheatgrass)	1.5
<u>Elymus cinereus</u> (Great Basin wildrye)	2.0
<u>Oryzopsis hymenoides</u> (indian ricegrass)	1.0
<u>Forbs</u>	
<u>Achillea millefolium</u> (yarrow)	.1
<u>Aster Chilensis</u> (Pacific aster)	.1
<u>Helianthus annuus</u> (sunflower)	1.0
<u>Linum lewisii</u> (Lewis flax)	.5
<u>Medicago sativa</u> ('Ranger' alfalfa)	1.0
<u>Melilotus officinalis</u> (yellow sweetclover)	1.0
<u>Penstemon strictus</u> (Rocky Mountain penstemon)	.2
<u>Shrubs</u>	
<u>Amelanchier alnifolia</u> (serviceberry)	2.0
<u>Artemisia tridentata</u> ssp. <u>vaseyana</u> ('Hobble Cr.' mountain big sagebrush)	.1
<u>Cercocarpus montanus</u> (true-leaf mtn. mahogany)	2.0
<u>Chrysothamnus nauseosus</u> (rubber rabbitbrush)	.5
<u>Total seed</u>	19.0

\*Rate is in terms of Pure Live Seed (PLS) for drill seeding only.  
The rate for broadcast seeding is double the drill rate.

After seeding, 2000 - 2500 lbs./acre of alfalfa hay mulch will be spread of the entire area and crimped into the soil with a mulch crimper.

Recommended Seed Mix for Final Reclamation  
Copperton Grinding Facility Area  
Kennecott Copper Corp.

Species	Rate* (lbs./acre)	Cost/acre
<u>Grasses</u>		
<u>Agropyron dasystachyum</u> (thickspike wheatgrass)	2.0	\$ 7.50
<u>Agropyron intermedium</u> (intermediate wheatgrass)	2.0	2.00
<u>Agropyron smithii</u> (western wheatgrass)	2.0	5.30
<u>Agropyron trachycaulum</u> (slender wheatgrass)	1.5	2.73
<u>Elymus cinereus</u> (Great Basin wildrye)	2.0	15.00
<u>Oryzopsis hymenoides</u>	1.0	6.00
<u>Forbs</u>		
<u>Achillea millefolium</u> (yarrow)	.1	\$ 3.00
<u>Aster Chilensis</u> (Pacific aster)	.1	7.00
<u>Helianthus annuus</u> (sunflower)	1.0	8.70
<u>Linum lewisii</u> (Lewis flax)	.5	4.00
<u>Medicago sativa</u> ( 'Ranger' alfalfa)	1.0	1.30
<u>Melilotus officinalis</u> (yellow sweetclover)	1.0	.50
<u>Penstemon strictus</u> (Rocky Mountain penstemon)	.2	5.40
<u>Shrubs</u>		
<u>Amelanchier alnifolia</u> (serviceberry)	2.0	\$125.70
<u>Artemisia tridentata vaseyana</u> ( 'Hobble Cr.' vasey big sage)	.1	8.00
<u>Cercocarpus montanus</u> (true-leaf mtn. mahogany)	2.0	70.00
<u>Chrysothamnus nauseosus</u> (rubber rabbitbrush)	.5	28.80

Total seed 19.0 lbs/acre

\*rate is in terms of Pure Live Seed (PLS)

0463R(20)

DIVISION OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
IN AND FOR THE STATE OF UTAH

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IN THE MATTER OF TENTATIVE  
APPROVAL OF THE REVISION TO  
THE MINING AND RECLAMATION  
PLAN SUBMITTED BY KENNECOTT,  
UTAH COPPER DIVISION  
SALT LAKE COUNTY, UTAH

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NOTICE OF TENTATIVE  
APPROVAL  
NO. ACT/035/002

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THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION,  
MINERAL AND ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS  
INTERESTED IN SECTIONS 5, 6 AND 8, TOWNSHIP 3 SOUTH, RANGE 2  
WEST, SLBM, SALT LAKE COUNTY, UTAH.

Notice is hereby given that tentative approval was given by  
the Division of Oil, Gas and Mining, on February\_\_, 1986 to  
Kennecott, Utah Copper Division to amend their originally  
approved surface mining operations in the SW1/4 of Section 5,  
the SE1/4 of Section 6, and the SE1/4 and W1/2 of Section 8,  
Township 3 South, Range 2 West, SLBM, Salt Lake County, Utah to  
provide for portions of a new grinding/milling facility and new  
access road to the site.

The name of the amendment to the mining operation is the  
Kennecott Utah Copper Division (UCD) Modernization Project and  
the person representing the company is Mr. Robert A. Malone,  
Director of Environmental Affairs, P.O. Box 11248, Salt Lake  
City, Utah 84147.

The project will be permitted in a two (2) phase  
approach. Each phase will be approved separately by this  
Division. This tentative approval is for "Phase I" of the  
overall project. The tentative decision for "Phase II" of the  
application for amendment will receive separate public notice.

Kennecott, Utah Copper Division has fulfilled obligations  
under the Utah Mined Land Reclamation Act of 1975 (Section  
40-8, UCA 1953 as amended) with specific reference to Section  
40-8-18 and will employ the following mining and reclamation  
techniques on approximately 163 additional acres of privately  
owned land.

During Operations:

1. "Phase I" permitting of the UCD Modernization Project involves construction of an access road to the proposed location for the new grinding/milling facility. Preliminary site grading and excavation work for foundations at the new grinding location will also be performed. The grinding plant will encompass 115 acres. The access road right-of-way encompasses 48 acres.
2. Topsoil will be stripped from portions of the plant site, temporarily stockpiled and protected from erosion. This soil will later be used for contemporaneous reclamation on the road embankments and exposed plant site outcrops.

Following Operations (for "Phase I"):

1. Kennecott's intentions are to continue with "Phase II" permitting and construction. Should the company fail to complete "Phase II" permitting, the following reclamation plan will be implemented by Kennecott:
  - (i) The disturbed areas will be stabilized and regraded to conform with the surrounding natural terrain.
  - (ii) The soil will be analyzed and supplemental amendments applied as necessary.
  - (iii) Standard agronomic practices will be used to prepare the seedbed for drill and/or broadcast seeding. The disturbed site will be reclaimed with native vegetative species.

The following stipulations are included as conditions to "Phase I" approval:

Because Kennecott will not perform complete topsoil salvaging and stockpiling activities for the entire grinding/milling facility location, an extensive test plot revegetation program will be developed. Results of this program will be used to determine proper postmining reclamation techniques that will reestablish vegetative productivity levels of the disturbed soils commensurate with the state's prescribed reclamation success standards.

Stipulation M-3(2)(e) - LK, JL

1. Kennecott will consult with the Division of Oil, Gas and Mining to finalize specific details and timeframes for the test plot program by July 1, 1986. Should results of the test plot program prove unsatisfactory, Kennecott will obtain and augment the disturbed sites with suitable substitute soil resources or provide alternative measures to assure compliance with state reclamation laws and regulations.

Any person or agency aggrieved by this tentative decision is hereby requested to submit written protest within thirty (30) days of the date of publication to the Division of Oil, Gas and Mining, 355 W. North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203, setting forth factual reasons for his or her complaint, and thereafter, at a time and place to be established, appear before the Board of Oil, Gas and Mining to show cause, if any, why this mine plan should not be approved.

DATED this \_\_\_th day of February 1986.

STATE OF UTAH  
DIVISION OF OIL, GAS AND  
MINING

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Marjorie L. Anderson  
Administrative Assistant

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